

Table 8 gp41

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
gp41(519-543)	gp41(9-53)	FLGFLGAAGSTMGAAS- LTLTQVQARC	peptide	murine(H-2 ^{b_{bxk,sxd}})	[Sastry & Arlinghaus(1991)]
			• Peptides induced T-cell proliferative response to immunizing peptide and to gp160		
gp41(547-561 IIIB B10)	gp41(37-51)	GIVQQQNLLRAIEA	HIV infection	human	[Wahren et al.(1989b), Wahren et al.(1989a)]
			• 12 gag and 18 env T-cell sites were identified that could commonly evoke T-cell responses		
gp41(562-576 IIIB B10)	gp41(52-66)	QQHLLQLTVWGIKQL	HIV infection	human	[Wahren et al.(1989b), Wahren et al.(1989a)]
			• 12 gag and 18 env T-cell sites were identified that could commonly evoke T-cell responses		
gp41(584-609 LAI)	gp41(62-87)	GIKQLQARILAVERYL- KDQQQLGIWG ?	HIV infection	human	[Schrier et al.(1989)]
			• Stimulates T-cell proliferation in HIV-infected donors		
gp41(585-615 IIIB)	gp41(68-98)	ARILAVERYLKDDQQLL- GIWGCSGKLICTTAV	peptide	murine	[Goodman-Snitkoff et al.(1990)]
			• Identification of putative Th epitopes that can stimulate an antibody response in peptide immunized mice		
gp41(env consensus)	gp41(84-94)	GIWGCSGKLIC	HIV infection	human	[Mutch et al.(1994)]
			• Core region of peptides that can stimulate proliferative responses from seronegative and seropositive people		
gp41(598-609 LAV-1)	gp41(83-94)	LGLWGCSGKLIC	peptide	murine(H2 ^d)	[Schrier et al.(1988)]
			• Murine T-dependent B-cell response; 7/29 people had a proliferative response to this peptide		
gp41(593-604 IIIB)	gp41(83-94)	LGIWGCSGKLIC	HIV infection	human	[Bell et al.(1992)]
			• Elicits T-cell proliferation and B cell responses, but only during the asymptomatic phase of HIV infection		
gp41(603-614 LAI)	gp41(81-92)	ELLGIWGCSGKL ?	HIV infection	human	[Schrier et al.(1989)]
			• Stimulates T-cell proliferation in HIV-infected donors		
gp41(609-620 LAI)	gp41(87-98)	GCSGKLICTTAV ?	HIV infection	human	[Schrier et al.(1989)]
			• Stimulates T-cell proliferation in HIV-infected donors		
gp41(env consensus)	gp41(99-106)	PWNASWSN	HIV infection	human	[Mutch et al.(1994)]
			• Core region of peptides that can stimulate proliferative responses from seronegative and seropositive people		
gp41(IIIB)	gp41(104-119)	WSNKSLEDIWDNMTWC	Peptide priming <i>in vitro</i>	human	[Manca et al.(1995)]
			• Peptide stimulation of PBMC from non-infected individuals <i>in vitro</i>		
gp41(IIIB)	gp41(124-139)	EIDNYTNTIYTLLEEC	Peptide priming <i>in vitro</i>	human	[Manca et al.(1995)]
			• Peptide stimulation of PBMC from non-infected individuals <i>in vitro</i>		

HIV Helper T-cell Epitopes

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
gp41(647-661 IIIB B10)	gp41(137-151)	EESQNQQEKNEQELL	HIV infection	human	[Wahren et al.(1989b), Wahren et al.(1989a)]
		• 12 gag and 18 env T-cell sites were identified that could commonly evoke T-cell responses			
gp41(655-667 LAI)	gp41(133-145)	HSLIEESQNQQEK ?	HIV infection	human	[Schrier et al.(1989)]
		• Stimulates T-cell proliferation in HIV-infected donors			
gp41(667-681 IIIB B10)	gp41(157-171)	ASLWNWFNITNWLWY	HIV infection	human	[Wahren et al.(1989b), Wahren et al.(1989a)]
		• 12 gag and 18 env T-cell sites were identified that could commonly evoke T-cell responses			
gp41(682-696 IIIB B10)	gp41(172-186)	IKLFIMIVGGLVGLR	HIV infection	human	[Wahren et al.(1989b), Wahren et al.(1989a)]
		• 12 gag and 18 env T-cell sites were identified that could commonly evoke T-cell responses			
gp41(737-749 LAI)	gp41(215-227)	RGPDRPEGIEEG ?	HIV infection	human	[Schrier et al.(1989)]
		• Stimulates T-cell proliferation in HIV-infected donors			
gp41(787-801 IIIB)	gp41(270-284)	RIVELLGRRGWEALK	IIIB gp160	murine(H-2 ^{d,k,t4})	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
gp41(801-815 IIIB)	gp41(284-298)	KYWWNLLQYWSQELK	IIIB gp160	murine(H-2 ^k)	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
gp41(806-820 IIIB)	gp41(289-303)	LLQYWSQELKNSAVS	IIIB gp160	murine(H-2 ^{k,d,t4})	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
gp41(806-820 IIIB)	gp41(289-303)	LLQYWSQELKNSAVS	IIIB gp160	murine(H-2 ^{k,d,t4})	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
gp41(IIIB)	gp41(304-319)	WLNATAIAVTEGTDRC	Peptide priming <i>in vitro</i>	human	[Manca et al.(1995)]
		• Peptide stimulation of PBMC from non-infected individuals <i>in vitro</i>			
gp41(828-842 IIIB)	gp41(311-325)	AVAEGTDRVIEVVQG	IIIB gp160	murine(H-2 ^k)	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
gp41(834-842 IIIB)	gp41(317-325)	DRVIEVVQG	IIIB gp160	murine(H-2 ^k)	[Hale et al.(1989)]
		• Suggested H-2 ^k epitope based on region of overlap			
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	IIIB gp160	murine(H-2 ^{k,i5})	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
		• Called Th4.1 and TH4			

HIV Helper T-cell Epitopes

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	peptide priming gp160 boost	rhesus monkeys(?)	[Hosmalin et al.(1991)]
			• Epitope TH4: Peptide priming to induce T-cell help enhances antibody response to gp160 immunization		
			• Called Th4.1 and TH4		
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	HIV exposure	human	[Pinto et al.(1995)]
			• Epitope TH4: CTL activity analyzed in parallel with T helper reactivity in exposed		
			• Called Th4.1 and TH4		
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	HIV infection	human	[Clerici et al.(1991a)]
			• Epitope TH4: Peptides stimulate Th cell function and CTL activity in similar patient populations		
			• Called Th4.1 and TH4		
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	rgp160	human	[Clerici et al.(1991b)]
			• Epitope TH4: Immunizing uninfected individuals with rgp160 results in stronger Th response than does natural infection		
			• Called Th4.1 and TH4		
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	HIV exposure	human	[Clerici et al.(1992)]
			• Epitope TH4: Cell-mediated immune response to HIV-1 peptides in HIV-1 exposed seronegative men		
			• Called Th4.1 and TH4		
gp41(834-848 IIIB)	gp41(317-331)	DRVIEVVQGAYRAIR	HIV infection	human	[Clerici et al.(1989)]
			• Epitope TH4: IL-2 production detection of T-helper lymphocytes from asymptomatic HIV-positive individuals		
			• Called Th4.1 and TH4		
gp41(841-855 IIIB)	gp41(324-338)	QGAYRAIRHIPRRIR	IIIB gp160	murine(H-2 ^{d,t4,i5})	[Hale et al.(1989)]
			• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types		
gp41(841-848 IIIB)	gp41(324-331)	QGAYRAIR	IIIB gp160	murine(H-2 ⁱ⁵)	[Hale et al.(1989)]
		• Suggested H-2 ^k epitope based on region of overlap			
gp41(846-860 IIIB)	gp41(329-343)	AIRHIPRRIRQGLER	IIIB gp160	murine(H-2 ^{d,t4})	[Hale et al.(1989)]
		• Six multideterminant helper T-cell regions are recognized by mice of three or four MHC types			
gp41(846-855 IIIB)	gp41(329-338)	AIRHIPRRIR	IIIB gp160	murine(H-2 ^{d,t4})	[Hale et al.(1989)]
		• Suggested H-2 ^{d,t4} epitope based on region of overlap			
gp41(842-856 IIIB B10)	gp41(332-346)	HIPRRIRQGLERILL	HIV infection	human	[Wahren et al.(1989b), Wahren et al.(1989a)]
			• 12 gag and 18 env T-cell sites were identified that could commonly evoke T-cell responses		